

Application No.: 10/612,482  
Docket No.: UC0213USNA4

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Remarks

Claims 1, 3, 4, 12-15, and 23 are pending in the application. All of these claims stand rejected.

Claims 1, 14, 15 and 23 are being amended, while claims 12 and 13 are canceled.

Claim 1 is amended to embody the limitations of claims 12 and 13, and to correct certain errors and informalities cited by the Examiner in the last Office Action. For example, in the subject matter of claim 13 moved to claim 1 by amendment, "alkylenearyl" has been changed to "arylalkylene" and "alkyleneheteroaryl" has been changed to "heteroarylalkylene". The portions of the specification that support these two changes are copied hereinbelow, for ease of reference:

Page 3, lines 12-23:

The prefix "hetero" indicates that one or more carbon atoms has been replaced with a different atom. The term "alkyl" is intended to mean a group derived from an aliphatic hydrocarbon having one point of attachment, which group may be unsubstituted or substituted. The term "heteroalkyl" is intended to mean a group derived from an aliphatic hydrocarbon having at least one heteroatom and having one point of attachment, which group may be unsubstituted or substituted. The term "alkylene" is intended to mean a group derived from an aliphatic hydrocarbon and having two or more points of attachment. The term "heteroalkylene" is intended to mean a group derived from an aliphatic hydrocarbon having at least one heteroatom and having two or more points of attachment.

Page 3, lines 35-37:

The terms "heteroalkenyl", "heteroalkenylene", "heteroalkynyl" and "heteroalkynylene" are intended to mean analogous groups having one or more heteroatoms.

Page 3, line 37 to page 4, line 22:

The term "aryl" is intended to mean a group derived from an aromatic hydrocarbon having one point of attachment, which group may be unsubstituted or substituted. The term "heteroaryl" is intended to

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mean a group derived from an aromatic group having at least one heteroatom and having one point of attachment, which group may be unsubstituted or substituted. The term "arylalkylene" is intended to mean a group derived from an alkyl group having an aryl substituent, which group may be further unsubstituted or substituted. The term "heteroarylalkylene" is intended to mean a group derived from an alkyl group having a heteroaryl substituent, which group may be further unsubstituted or substituted. The term "arylene" is intended to mean a group derived from an aromatic hydrocarbon having two points of attachment, which group may be unsubstituted or substituted. The term "heteroarylene" is intended to mean a group derived from an aromatic group having at least one heteroatom and having two points of attachment, which group may be unsubstituted or substituted. The term "arylenealkylene" is intended to mean a group having both aryl and alkyl groups and having one point of attachment on an aryl group and one point of attachment on an alkyl group. The term "heteroarylenealkylene" is intended to mean a group having both aryl and alkyl groups and having one point of attachment on an aryl group and one point of attachment on an alkyl group, and in which there is at least one heteroatom. Unless otherwise indicated, all groups can be unsubstituted or substituted.

In addition, the definitions of integers have been changed in accordance with the Examiner's requests in the last Office Action. The Applicants thank the Examiner for indicating the informalities requiring correction.

Claims 14 and 15 are amended to make dependence proper on amended claim 1 in light of the cancellation of claims 12 and 13, and to correct the formulas shown in V(s) and V(ad). Again, Applicants thank the Examiner for identifying these needed corrections.

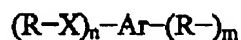
Claim 23 has been amended to correct dependence, both as to the anachronistic dependence on canceled claim 2 and to take the current claim amendments and cancellations into account.

An amendment to the specification is made to bring the antecedent basis for certain claim language into consistency. The amendment is merely a logical variant of the original.

The amendments introduce no new matter into the specification or claims.

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Applicants respectfully submit that the amendments overcome, or render moot, the 35 U.S.C. § 103(a) rejections based upon Adachi in view of Egusa, and Li in view of Egusa. In the event that these rejections, and/or that of Kamatani in view of Li and Egusa are maintained, Applicants submit the following to distinguish the amended claims from these references, especially the subject matter of claims 12 and 13 as transferred by amendment to claim 1. It is noted, with thanks, that in the last Office Action the Examiner has indicated that the claim 15 formulas are not disclosed or taught by Kamatani. It is respectfully submitted that this reference does not teach or suggest Formula V (now incorporated into claim 1). Kamatani discloses devices comprising, inter alia, an electroconductive layer formed by using a mixture of a plurality of organic compounds which are mutually structural isomers including a major component and a minor component in a ratio of from 1/1 to 9/1 (major component)/(minor component). See Paragraph [0027]. The organic compounds constituting the isomeric mixture are represented by formula (1):



where Ar is a connected ring structure comprising two rings connected by a single bond or two fused ring structures that are connected by a single bond. Paragraphs [0035]-[0036]. A number of examples of both (single ring and fused ring connected systems) are given in Paragraph [0037], pages 2-3. Ar in formula (1) may also be represented by formula (2),



where A and B independently denote a number of different heterocyclics including quinoxaline-diyl. Paragraphs [0039]-[0041].

Applicants respectfully submit that formula (1), whether Ar is represented by formula (2) or are aromatic hydrocarbons (which may include alicyclic substituents) do not render obvious the range of possible compounds depicted for Formula V because, at the very least, claim 1 does not require a major component/minor component isomeric mixture as is taught in Kamatani. In addition, though taking Formula V with the suppositions that (i)  $w = 0$  so that there is no  $R^4$  substituent, (ii) one  $R^5$  is heteroaryl, and (iii) the other  $R^5$  is H, a compound readable on Kamatani's formula (1) where Ar is a formula (2) di-heteroaryl connected system, this still does not address the isomeric mixture requirement taught in Kamatani. Nor does this one set of limited assumptions teach the varied range of possible quinoxaline derivatives of Formula V.

Applicants respectfully suggest that this rejection should be withdrawn.

Finally, a terminal disclaimer is being filed concurrently with this paper to overcome the nonstatutory obviousness-type double patenting rejection of the pending claims over copending Application No. 10/612,704.

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**Conclusion**

Should there be any questions about the status of the application or the contents of this paper, the Examiner is respectfully invited to call the undersigned at the telephone number listed below.

Respectfully submitted,



John H. Lamming  
Attorney for Applicants  
Registration No.: 34,857  
Telephone: (302) 992-5877  
Facsimile: (302) 892-1026

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